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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,878	07/21/2003	Curtis Reese	200206812-1	5898

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FORT COLLINS, CO 80527-2400

EXAMINER
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TO, BAOTRAN N

ART UNIT	PAPER NUMBER
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2135

NOTIFICATION DATE	DELIVERY MODE
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10/03/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/623,878	<b>Applicant(s)</b> REESE ET AL.	
	<b>Examiner</b> Bao tran N. To	<b>Art Unit</b> 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-13 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-13 and 15-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office action is responsive to the Applicant's Amendment filed 06/17/2008.  
  
Claims 11-13 and 15-27 are amended.  
  
Claims 1-10, 14, and 28-58 are canceled.  
  
Claims 11-13 and 15-27 remain for examination.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 11-13 and 15-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

3. Claim 16 is objected to because of the following informalities: "image objects of the image" in line 2 should be --- sub-images of the image----. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 11-13, 15-17, 22-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 14 and 23 recite the limitation "encoding the digital metadata into two or more sub-watermarks of a digital steganographic watermark of the image" in lines 4-5 which is not supported by the original filed specification. After carefully reviewing the specification, Examiner only found the phrases "sub images" "sub-watermarks" and "a digital steganographic watermark" in the specification. Nowhere in the specification mentions "encoding the digital metadata into two or more sub-watermarks of a digital steganographic watermark of the image."

Claim 22 recites the limitation "encoding one or more fields of metadata in each sub-watermark of the plurality of sub-watermarks of the sub-image" in lines 3-5 which is not supported by the original filed specification. After carefully reviewing the specification, Examiner only found the phrases "sub images" "sub-watermarks" and "a digital steganographic watermark" in the specification. Nowhere in the specification mentions "encoding one or more fields of metadata in each sub-watermark of the plurality of sub-watermarks of the sub-image."

Claims 12-13, 15-17, and 24-27 are also rejected because of their dependency.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-13 and 15-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. (U.S. P.G. Publication 2002/0001395 A1) hereinafter Davis in view of Alattar et al. (U.S. P.G. Publication 2003/0185417 A1) hereinafter Alattar.

Regarding Claims 11 and 23, Davis discloses a method of watermarking an image:

associating digital metadata with each sub-image of two or more sub-images of an image (paragraphs 0002, 0003, 0015 and 0018); and

encoding the digital metadata into of a digital steganographic watermark of the image, encodes the digital metadata associated with a selected sub-image of the two or more sub-images (paragraphs 0002, 0025 and 0091).

Davis explicitly does not disclose “two or more sub-watermarks and wherein each sub-watermark of the two or more sub-watermarks.”

However, Alattar expressly discloses two or more sub-watermarks and wherein each sub-watermark of the two or more sub-watermarks (Figure 2, paragraphs 0050 and 0051).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Alattar’s invention within Davis to include two or more sub-watermarks and wherein each sub-watermark of the two or

more sub-watermarks. One of ordinary skill in the art would have been motivated to do so because it would protect documents from counterfeit and forgery.

Regarding Claim 18, Davis discloses a method of watermarking at least one sub-image of an image, comprising:

encoding metadata associated with each one sub-image of two or more sub-images of an image in a digital steganographic watermark of each sub-image of an image (paragraphs 0002, 0025 and 0091).

Davis explicitly does not disclose “plurality of fields of metadata.”

However, Alattar expressly discloses plurality of fields of metadata (Figure 2, paragraphs 0050 and 0051).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Alattar’s invention within Davis to include plurality of fields of metadata. One of ordinary skill in the art would have been motivated to do so because it would protect documents from counterfeit and forgery.

Regarding Claims 12 and 25, Davis and Alattar disclose the limitations of Claims 11 and 23 above. Davis and Alattar further disclose wherein encoding the digital metadata into two or more sub-watermarks of a digital watermark of the image further comprises encoding the metadata into two or more sub-watermarks of a digital watermark of the image (Davis, paragraphs 0002, 0025 and 0036 and Alattar, paragraphs 0050-0051 and 0060), wherein the digital watermark is a high coding rate

watermark (Davis, paragraphs 0002, 0025 and 0091 and Alattar, paragraphs 0050-0051).

Regarding Claims 13 and 26, Davis and Alattar disclose the limitations of Claims 11 and 23 above. Davis and Alattar further disclose wherein encoding the digital metadata into two or more sub-watermarks of the digital watermark of the image further comprises encoding the metadata into two or more sub-watermarks of the digital steganographic watermark of the image, wherein each sub-watermark of the two or more sub-watermarks is of a differing encoding method and/or transform (Davis, paragraphs 0002, 0036 and 0071 and Alattar, paragraphs 0051 and 0060).

Regarding Claim 15, Davis and Alattar disclose the limitations of Claims 11 and 23 above. Davis and Alattar further disclose encoding the digital metadata into two or more sub-watermarks of the digital steganographic watermark of the image further comprises encoding two or more data fields of digital metadata in at least one of the two or more sub-watermarks of the watermark (Davis, paragraphs 0002, 0036 and 0091 and Alattar, paragraphs 0051 and 0060).

Regarding Claim 16, Davis and Alattar disclose the limitations of Claims 11 and 23 above. Davis and Alattar further disclose encoding two or more sub-watermarks in the digital steganographic watermark in one or more image objects of the image (Davis, paragraphs 0002, 0025 and 0071 and Alattar, paragraphs 0051 and 0060).

Regarding Claim 17, Davis and Alattar disclose the limitations of Claims 11 and 23 above. Davis and Alattar further disclose wherein encoding the metadata into two or more sub-watermarks of the digital steganographic watermark of the image further comprises encoding at least one of a manufacturer information field, an object characteristics data field, an order information data field, and a manufacturer designated data field (Davis, paragraphs 0025, 0036 and 0091 and Alattar, paragraphs 0005 and 0097).

Regarding Claim 19, Davis and Alattar disclose the limitations of Claim 18 above. Davis and Alattar further disclose wherein encoding the plurality of fields of metadata associated with each sub-image of two or more sub-images of the image in the digital steganographic watermark of each sub-image of the image (Davis, paragraphs 0002, 0025 and 0091 and Alattar, paragraphs 0050-0051 and 0060) further comprises encoding the plurality of fields of metadata associated with each sub-image in a high coding rate digital steganographic watermark (Alattar, paragraphs 0050-0051 and 0097).

Regarding Claim 20, Davis and Alattar disclose the limitations of Claim 18 above. Davis and Alattar further disclose wherein encoding the plurality of fields of metadata associated with each sub-image of two or more sub-images of the image in the digital steganographic watermark of each sub-image of the image further comprises encoding



the plurality of fields of metadata associated with each sub-image in the digital steganographic watermark containing a plurality of sub- watermarks of the sub image, each sub-watermark encoded with a different encoding method and/or transform (Davis, paragraphs 0002, 0025 and 0091 and Alattar, paragraphs 0051 and 0060).

Regarding Claim 21, Davis and Alattar disclose the limitations of Claim 20 above. Davis and Alattar further disclose wherein each field of metadata associated with each sub-image is encoded into a separate sub-watermark (Davis, paragraphs 0002, 0025 and 0091 and Alattar, paragraphs 0051 and 0060).

Regarding Claim 22, Davis and Alattar disclose the limitations of Claim 20 above. Davis and Alattar further disclose wherein encoding the plurality of fields of metadata associated with each sub-image in the digital steganographic watermark of each sub-image of the image further comprises encoding one or more fields of metadata in each sub-watermark of the plurality of sub-watermarks of the sub-image (Davis, paragraphs 0002, 0025 and 0091 and Alattar, paragraphs 0051 and 0060).

Regarding Claim 27, Davis and Alattar disclose the limitations of Claim 24 above. Davis and Alattar further disclose wherein the metadata associated with each sub-image of the two or more sub-images is encoded in two or more sub-watermarks of the digital steganographic watermark of the sub-image (Davis, paragraphs 0002, 0025, 0071 and Alattar, paragraphs 0050-0051) .

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baotran N. To whose telephone number is (571)272-8156. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. N. T./

Examiner, Art Unit 2135

/KimYen Vu/

Supervisory Patent Examiner, Art Unit 2135